Formula Approaches To Budgeting

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PREFACE

The Deficit Reduction Act of 1984 (Section 2906) directs the Congressional Budget Office (CBO) to conduct a study of the administrative feasibility and potential impact of applying alternative formula approaches to the entire federal budget. This report was prepared to fulfill this study requirement.

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FORMULA APPROACHES TO BUDGETING

The prospect of large and growing budget deficits for the remainder of the 1980s, and the feeling that the effects of measures to reduce these deficits should be spread widely across various budget categories have led to proposals for formula-type approaches for dealing with the problem. Some of these proposals are very general in nature and, by themselves, do not reveal what specific policy measures would have to be taken to implement them. Examples include a constitutional requirement for a balanced budget, an expenditure cap that would prohibit spending from exceeding a specified level or a certain percentage of the gross national product (GNP), and a limit on the annual growth in budget outlays. Other proposals are more specific in nature and generally can be translated easily into specific actions. Such proposals include budget "freezes" that would hold appropriations to last year's levels, across-the-board percentage reductions to amounts provided in annual appropriation bills, and proposals calling for specified growth rates in discretionary appropriations.

Formulas may be appealing because of their simplicity and apparent evenhandedness. For example, a one or two-year freeze in appropriations is a relatively simple concept to explain and carry out, and gives the appearance of treating fairly all claimants for budgetary resources. Applying formulas to entitlement benefits and other mandatory spending is usually more difficult, but formulas can be applied to certain features of entitlement programs such as annual cost-of-living adjustments.

THE COMPOSITION OF THE FEDERAL BUDGET

A useful starting point for gauging the applicability and effects of various formula approaches is to examine the composition of the federal budget.

Major Categories

Table 1 provides a summary description of the major categories of the budget and shows how the composition has changed over the past 20 years (1964-1984). It also gives CBO's baseline projections for 1989 to show possible further changes during the next five years under current laws and policies. 1/

During the past 20 years, total budget outlays have grown sevenfold, from $118.6 billion in 1964 to $841.8 billion in 1984. This represents an average annual growth rate of 10.3 percent, about a percentage point higher than the average annual growth in the economy (as measured by the gross national product). Consequently, total budget outlays as a percent of GNP have risen from 19.2 percent in 1964 to 23.4 percent in 1984. Under CBO's baseline assumptions, total outlays would grow by an average of 9.0 percent during the next five years, or slightly faster than the projected growth in the economy. As a percent of GNP, total outlays would rise to 24.1 percent by 1989.

1/ The CBO baseline projections used for this study are an interim update of the projections published in The Economic and Budget Outlook: An Update (August 1984). They are based on the same economic and technical estimating assumptions, but incorporate Congressional action on the 1985 budget by the 98th Congress. The projections for defense spending provide for roughly 5 percent real increases in budget authority each year, and the projections for nondefense discretionary spending generally assume that future increases in budget authority will keep pace with inflation. These projections will be revised using new economic and technical estimating assumptions in CBO's forthcoming annual report to the Budget Committees, The Economic and Budget Outlook: Fiscal Years 1986-1990 (February 1985).

TABLE 1. THE CHANGING COMPOSITION OF FEDERAL BUDGET OUTLAYS (By fiscal year)

	1964	1969	1974	1979	1984	1989 Baseline
			In Billions of Dollars			
National Defense	54.8	82.5	79.3	116.3	227.5	387.4
Entitlements and Other Mandatory Spending	35.0	59.5	125.3	237.2	395.6	552.0
Nondefense Discretionary Spending	28.4	40.1	63.1	120.9	152.9	205.4
Net Interest	8.2	12.7	21.4	42.6	111.1	213.4
Offsetting Receipts	-7.8	-11.1	-21.3	-26.1	-45.3	-65.9
Total	118.6	183.6	267.9	491.0	841.8	1,292.1
			As a Percent of GNP			
National Defense	8.9	9.1	5.8	4.9	6.3	7.2
Entitlements and Other Mandatory Spending	5.7	6.3	9.1	10.1	11.0	10.3
Nondefense Discretionary Spending	4.6	4.4	4.6	5.1	4.3	3.8
Net Interest	1.3	1.4	1.6	1.8	3.1	4.0
Offsetting Receipts	-1.3	-1.2	-1.5	-1.1	-1.3	-1.2
Total	19.2	20.2	19.4	20.8	23.4	24.1

The growth in outlays has not been uniform among the major categories of the budget. The fastest growing component of the budget, particularly in the last 10 years, has been net interest costs. For the most part, the net interest category represents interest costs for that portion of the federal debt held by the public, including the Federal Reserve System. Between 1964 and 1984, net interest outlays have grown by an average of 13.9 percent each year; between 1974 and 1984 the average annual growth

rate has been 17.9 percent. During the next five years (1985 to 1989), the average growth in net interest costs is projected to be 13.9 percent. Relative to GNP, interest costs have risen from 1.3 percent in 1964 to 3.1 percent in 1984 and are projected to grow to 4.0 percent by 1989.

The entitlements and other mandatory spending category has also grown faster than total outlays during the past 20 years. An entitlement program is one that provides benefits to any person, business, or unit of government that meets the eligibility requirements established in laws or regulations. The largest component of the entitlement category is social insurance--Social Security, Medicare, unemployment compensation, and railroad retirement. The category also includes federal employee retirement and disability benefits, means-tested programs that provide cash benefits and services to low-income people, general revenue sharing, and farm price support programs. Between 1964 and 1984, entitlements and other mandatory spending has grown from $35.0 billion to $395.6 billion, or by an average of 12.9 percent a year. As a percent of GNP, the relative size of this category has almost doubled--rising from 5.7 percent in 1964 to 11.0 percent in 1984. During the next five years, under current laws, entitlements and other mandatory spending is projected to grow by an average of only 6.9 percent per year, and fall as a percent of GNP to 10.3 percent by 1989.

National defense has been the slowest growing category of federal outlays when viewed over the 20-year period from 1964 to 1984, but during

the past five years it has been growing faster than any other category except net interest. National defense programs include the military activities of the Department of Defense, as well as the nuclear weapons programs of the Department of Energy and certain related activities such as defense stockpiles. National defense outlays grew rapidly between 1964 and 1965 as a result of the Vietnam buildup, then declined slightly during the next five years. Growth resumed in defense outlays between 1974 and 1979, although at a slower pace than total outlays or the GNP, and then accelerated during the last five years to an average annual rate of 14.4 percent. Assuming continued real growth in defense appropriations at about 5 percent per year, national defense outlays are projected to grow to close to $400 billion by 1989, or by an average rate of 11.2 percent during the next five years. As a percent of GNP, national defense outlays would rise to 7.2 percent by 1989 compared to 6.3 percent in 1984 and 4.9 percent in 1979, but would still fall short of the 9 percent level that existed in 1964 and 1969.

The nondefense discretionary spending category covers all remaining programs subject to annual appropriations or to loan limits imposed in appropriation acts. It includes programs ranging from the basic activities of government--the conduct of foreign affairs, the tax collection system, the judicial and legislative branches, and the like--to grants to state and local governments for education, highway construction, and community development. It also includes foreign assistance, science and space programs, energy, flood control and reclamation, air traffic control, health research, veterans' medical care, and other federally provided financial assistance and

services. Nondefense discretionary spending has increased more than fivefold during the past 20 years, from $28.4 billion in 1964 to $152.9 billion in 1984. The growth rate for these programs accelerated between 1964 and 1979, and averaged 13.9 percent between 1975 and 1979; it then dropped to 4.8 percent during the last five years. Over the entire 20-year period, nondefense discretionary spending grew somewhat less than the economy. Consequently, as a percent of GNP, nondefense discretionary spending was slightly lower in 1984 than 20 years earlier--4.3 percent in 1984 compared to 4.6 percent in 1964. Under CBO's baseline projections, which assume that nondefense discretionary spending will only keep pace with inflation, outlays as a percent of GNP would drop further to 3.8 percent by 1989.

The category of offsetting receipts includes proprietary income from the public derived from the sale of government property, products, and services. It also includes payments by federal agencies (as employer) for employee retirement and health benefits. These offsetting receipts are subtracted from outlays. They have grown at roughly the same pace as the economy and, accordingly, have remained at about the same level as a percent of GNP since 1964. No significant change is projected for the next five years.

Functional Categories

Another important classification of federal spending is according to the major functions being served by federal programs. The Congressional Budget Act of 1974 requires the Congress to include estimates of budget

authority and outlays for each major function in its annual budget resolutions. This classification by function provides a means of presenting spending estimates according to the national needs that federal programs are intended to serve, regardless of the methods used to carry out the activities. National needs are grouped in 18 broad areas, ranging from national defense, international affairs, and energy programs to agriculture, transportation, health, and general government. Three additional categories--net interest, allowances, and undistributed offsetting receipts--do not address specific national needs but are included to cover the entire budget. The allowances category is used only for budget plans, primarily for civilian agency pay raises, which are not distributed by function.

The national defense and net interest functions are identical to the major categories described above and shown in Table 1. The bulk of the entitlements and other mandatory spending are classified in the medical insurance, income security, social security, and veterans' benefits and services functions. Entitlements and other mandatory spending also constitute the major part of the agriculture, health, and general purpose fiscal assistance functions (farm price supports, Medicaid, and general revenue sharing respectively). The remaining program functions fall mainly into the nondefense discretionary spending category. Proprietary income is distributed among the program functions with the exception of offshore oil and gas receipts, which are included in the undistributed offsetting receipts function.

As with the major categories of federal spending shown in Table 1, the growth in outlays among the functional categories has not been uniform during the past 20 years. Table 2 shows federal outlays by functional category in 1964, 1974, and 1984 and the average annual growth rate for each category for the full 20-year period as well as the last 10 years.

The interpretation of the trends shown in Table 2 depends upon the time period chosen for review. Over the full 20-year period (1964-1984), the fastest growing functional category is general purpose fiscal assistance. Viewed over the last 10 years (1974-1984), however, this is the only functional category showing a decline in outlays. The explanation is that this function includes general revenue sharing, which began in 1973 with outlays of $6.6 billion but has since been reduced to $4.6 billion.

Similarly, one of the fastest growing functional categories during the past 10 years has been the agriculture function, which grew from $2.2 billion in 1974 to $12.3 billion in 1984. Between 1964 and 1974, however, outlays declined in this function from $4.6 billion to $2.2 billion. This category includes the farm price support programs, which have been quite volatile from year to year as the result of changing weather conditions and farm policies. In the last few years, outlays in the agriculture function have ranged from $4.9 billion in 1980 to $22.2 billion in 1983.

TABLE 2. FEDERAL BUDGET OUTLAYS BY MAJOR FUNCTION (Fiscal years, in billions of dollars)

Major Function	1964	1974	1984	Average Growth Rate (%) 1964-1984	Average Growth Rate (%) 1974-1984
National Defense (050)	54.8	79.3	227.5	7.4	11.1
International Affairs (150)	5.0	5.8	13.1	5.0	8.6
General Science, Space, and Technology (250)	4.9	4.0	8.3	2.7	7.6
Energy (270)	0.6	0.8	2.5	7.7	12.0
Natural Resources and Environment (300)	2.4	5.7	12.6	8.7	8.3
Agriculture (350)	4.6	2.2	12.3	5.0	18.6
Commerce and Housing Credit (370)	0.4	3.9	5.2	13.5	2.9
Transportation (400)	5.2	9.2	24.7	8.1	10.4
Community and Regional Development (450)	0.9	4.1	7.3	10.8	5.8
Education, Training, Employment, and Social Services (500)	1.6	12.4	27.6	15.4	8.4
Health (550)	1.8	10.7	30.4	15.2	11.0
Medical Insurance (570)	NA	9.6	57.5	NA	19.6
Income Security (600)	9.7	33.7	112.5	13.0	12.8
Social Security (650)	16.6	55.9	178.2	12.6	12.3
Veterans' Benefits and Services (700)	5.7	13.4	25.6	7.8	6.7
Administration of Justice (750)	0.5	2.5	5.6	13.0	8.6
General Government (800)	1.3	3.1	4.9	7.1	4.8
General Purpose Fiscal Assistance (850)	0.2	6.9	6.8	18.1	-0.2
Net Interest (900)	8.2	21.4	111.1	13.9	17.9
Undistributed Offsetting Receipts (950)	-5.7	-16.7	-32.0	9.0	6.6
Total	118.6	267.9	841.8	10.3	12.1
Memorandum:					
Social Security and Medicare	16.6	65.5	235.8	14.2	13.7

Note: Military retirement cash benefits are included in the income security function (600), while the national defense (050) and undistributed offsetting receipts (950) functions include offsetting amounts for accrued retirement costs.

In general, the fastest growing program functions throughout the period have been medical insurance (Medicare), income security (federal employee retirement, unemployment compensation, housing assistance, food stamps and other nutrition assistance, and other income aids), and Social Security. Almost all of the programs in these functions fall into the entitlements and other mandatory spending category. Certain functions grew more rapidly during the first half of the 1964-1984 period than during the second half. These include the community and regional development and the education, training, employment, and social services functions, which contain a number of Great Society programs. The health function also grew more rapidly between 1964 and 1974 than since 1974, with the early growth resulting from the establishment of the Medicaid program. In contrast, other functions have grown more rapidly in the last 10 years than during the first half of the 20-year period. These include international affairs, the general science and space function, energy, and transportation.

While the functional classification is more illuminating as to the purposes of federal spending programs, the five major categories shown in Table 1 have become widely used for developing budget plans. As discussed in the next section, the five categories also are more closely associated with legislative means of controlling spending, either through the appropriation process or the authorization process. Moreover, it is much easier to grapple with five categories than with the much larger number contained in the functional classification.

LIMITATIONS IN THE APPLICABILITY OF FORMULAS

Given the composition of the federal budget, it is apparent that a general formula approach to budget formulation will not work equally well for all parts of the budget. Net interest costs depend on the level of the total interest-bearing debt held by the public and on interest rates. The only direct way to lower projected net interest costs in the next few years is to reduce the size of the projected deficits through reductions in other spending categories or by raising taxes.

General formulas, however, can be applied to national defense and nondefense discretionary spending programs. During the last few years, for example, the policy debates on the appropriate level for the national defense category have been conducted in terms of a general formula--the amount of real growth in defense spending authority from the previous year. Similarly, budget targets for nondefense discretionary spending programs are often stated in terms of changes from the previous year that can be expressed in terms of formulas (for example, 5 percent real growth, zero real growth, 3 percent nominal growth, zero nominal growth, etc.).

These growth-rate formulas are generally applied to discretionary appropriation amounts (budget authority) rather than to outlays because these are what the Congress determines in the annual appropriation bills. The provision of budget authority allows agencies to enter into contracts for the purchase of goods and services, or to obligate the provision of financial assistance, that eventually will result in issuing of checks or budget

outlays. The rate at which budget authority results in outlays varies widely among different programs. An appropriation for a nuclear aircraft carrier may take 10 years or more to be transformed into outlays, whereas most appropriations for agency salaries and operating expenses are spent very quickly. Also, some spending programs are forward funded, such as education grants, which means that the spending authority is provided one or more years in advance of being used.

All of the administrative control mechanisms operate to insure that agency obligations do not exceed the amount of budget authority provided each year in Congressional appropriations. There are no administrative mechanisms in place to control specifically the timing or amount of outlays. As a result, it would be very difficult to regulate outlays directly through a general formula approach. The regulation would have to be applied indirectly through the appropriation of budget authority.

It would be even more difficult to apply growth-rate formulas to the entitlements and other mandatory spending category because of their general nature. While some of these programs (for example, Medicaid, SSI, assistance payments, and various veterans' benefits) are subject to annual appropriations, their annual costs are determined by applying eligibility, benefit, and other provisions established in the authorizing legislation. To change the level of spending for these programs, it would be necessary to amend the authorization laws.

Because some of the entitlement benefits are calculated in terms of formulas, it would be possible to apply a general formula approach to amend certain features of the programs. For example, the formula used to index benefits for inflation could be modified in a uniform way. Also, to the extent that eligibility for benefits depends on income, the income levels could be modified by a formula approach. Since the eligibility criteria vary from program to program, however, it generally would not be possible to achieve a uniform growth rate in outlays by applying general formulas. To achieve a uniform growth rate, it probably would be necessary to remove the entitlement features from these programs and to allow pro rata reductions in benefits in order to keep outlays from exceeding specified spending levels.

Offsetting receipts are very much like entitlements in that any changes would have to be made through the authorizing process and it would be difficult , if not impossible, to achieve a uniform effect. Since offsetting receipts are subtracted from outlays, they should be increased to achieve a reduction in total outlays. This could be accomplished by increasing the prices charged for various products and services that are sold, but many prices are determined in the marketplace and not by the government. This, by itself, would preclude applying a general formula approach to all the programs included in this category.

SOURCES OF GROWTH

An important consideration in applying formulas to the control of expenditures is the sources from which future growth is expected to come.

In CBO's baseline projections, unified budget outlays grow from $933 billion in 1985 to $1,292 billion in 1989, an increase of $359 billion. Defense and entitlements each contribute more than one-third of this total. Net interest costs account for over 20 percent of projected growth, and nondefense discretionary spending for another 10 percent. The sources of growth are summarized in Table 3.

TABLE 3. SOURCES OF GROWTH IN BASELINE SPENDING AFTER 1985
(By fiscal year, in billions of dollars)

	1986	1987	1988	1989	Cum. 4-Year Total
Defense					
Real defense growth	5.0	16.2	31.9	50.9	104.0
Inflation adjustments	7.4	19.9	34.9	51.2	113.4
Other increases over 1985 outlays	14.6	23.5	24.9	23.6	86.6
Subtotal	27.0	59.6	91.7	125.7	304.0
Entitlements and Other Mandatory Spending					
Cost-of-living adjustments	11.5	25.4	39.6	53.9	130.4
Medical cost increases	6.9	15.0	23.5	32.2	77.6
Caseload increases	5.4	11.2	17.7	24.5	58.8
Increased medical care utilization	1.5	4.1	8.0	13.0	26.6
Other	3.8	4.6	8.0	9.7	26.1
Subtotal	29.1	60.2	96.7	133.4	319.4
Nondefense Discretionary Spending					
Inflation adjustments	2.9	7.6	13.5	20.2	44.2
Civilian agency pay raises	1.9	3.9	6.1	8.4	20.3
Other	3.0	7.2	8.8	8.8	27.8
Subtotal	7.8	18.7	28.4	37.4	92.3
Net Interest	16.5	35.5	61.7	79.5	193.2
Offsetting Receipts	-5.2	-8.7	-12.0	-16.9	-42.8
Total Growth from 1985	75.2	165.3	266.6	359.1	866.2

The growth in defense spending after fiscal year 1985 can be divided into three parts. One part consists of the additional outlays resulting from the assumed real growth in defense budget authority of roughly 5 percent a year. This portion adds about $50 billion to outlays by 1989. The second portion represents the cost of maintaining the real value of 1985 budget authority in the face of higher prices. These inflation adjustments, including salary increases for military and civilian employees, would add more than $50 billion in outlays by 1989. Finally, defense outlays would rise by about $24 billion after 1985 even if defense budget authority were frozen at the 1985 appropriation level because current outlays do not yet fully reflect the increases in budget authority provided by the Congress in recent years.

About two-thirds of the projected growth in outlays for entitlements and other mandatory spending results from price increases. Future cost-of-living adjustments in indexed benefit programs (such as Social Security) account for $54 billion out of the projected $133 billion increase in entitlement spending over the next four years. Another $32 billion is the result of medical price increases, which push up Medicare and Medicaid costs. Increases in the number of people eligible for Social Security, Medicare and Medicaid, and other benefit programs would result in a rise of $25 billion in outlays in 1989, and increases in the use of medicare care services by Medicare and Medicaid beneficiaries would add another $13 billion. The remaining growth in entitlement spending results from cost-of-living adjust-

ments provided in 1985 and projected increases in farm price support payments.

Growth in nondefense discretionary programs has three major sources. The first is the increase assumed in the baseline projections to keep the nonpay portion of discretionary spending up-to-date with inflation. These discretionary inflation adjustments amount to $20 billion by 1989, or more than half of the $37 billion total growth in this category. The second source of growth is pay raises for the employees of federal civilian agencies, which cumulate to $8 billion by 1989. The remaining growth largely reflects previously enacted increases in appropriation bills.

The increase in net interest results from growing baseline budget deficits and the assumed continuation of relatively high interest rates. Net interest costs are projected to rise by $80 billion between 1985 and 1989. Offsetting receipts are also projected to grow moderately over the next four years, helping to hold down the growth in total outlays.

SETTING GENERAL BUDGET TARGETS

While a general formula cannot be applied in a uniform way to all parts of the budget, a formula approach can be used for setting overall spending targets. This section describes an approach that begins with the selection of a future-year budget target and then applies general formulas to achieve this target.

A Future-Year Budget Target

One might start with a future-year target of reducing the federal budget deficit to some level of GNP--say 2 percent or roughly $100 billion--by 1989. This would be close to the average level of the deficit (as a percent of GNP) that prevailed during the 1970s. It would also result in a situation where federal debt would be falling as a share of GNP, and debt service costs also would be falling as a share of the budget. This could help achieve budget balance in the following years.

Under CBO's baseline assumptions, the deficit could be reduced to 2 percent of GNP under current tax law by limiting the nominal growth in total federal outlays during the next four years to 5.3 percent a year (0.5 percent per year in real terms, using the implicit GNP deflator for calculating real growth). A 5.3 percent nominal growth rate would be close to the growth rate that occurred in 1984 but about 3 percentage points below the average rate for 1986-1989 in CBO's baseline. Under a 5.3 percent growth path total outlays would rise from $933 billion in 1985 to $1,148 billion in 1989, or $144 billion lower than CBO's baseline projection for 1989. Over the four-year period, outlays would be $343 billion lower on a cumulative basis relative to CBO's baseline. Assuming that the economy performed exactly as in the CBO baseline assumptions, net interest costs would be reduced by $49 billion over the four-year period, leaving $294 billion to be achieved through program reductions (see Table 4).

TABLE 4. HYPOTHETICAL BUDGET PLAN: 5.3 PERCENT ANNUAL GROWTH IN TOTAL OUTLAYS

	1986	1987	1988	1989	Cum. 4-Year Total
CBO Baseline Outlays	1,008.2	1,098.3	1,199.6	1,292.1	4,598.2
Outlays Limited to 5.3% Annual Growth	982.6	1,034.9	1,090.0	1,148.0	4,255.5
Reduction from Baseline	25.6	63.4	109.6	144.1	342.7
of which:					
Lower interest costs	1.3	5.7	14.5	27.5	49.0
Program reductions	24.3	57.7	95.1	116.6	293.7
			Program Reductions		
Option 1: Equal % reduction					
National defense	7.7	18.8	31.6	39.5	97.6
Entitlements, et. al.	11.9	28.0	46.0	56.2	142.1
Nondefense discretionary	4.7	10.9	17.5	20.9	54.0
Option 2: Equal growth rates					
National defense	14.8	34.7	54.1	70.2	173.8
Entitlements, et. al.	9.6	20.3	36.7	44.6	111.2
Nondefense discretionary	*	2.7	4.3	1.8	8.8

* Less than $50 million.

A Baseline Reduction Formula

At least two formulas could be used to distribute the necessary spending reductions among the general budgetary categories. The first would be to reduce each category by equal percentage amounts from projected baseline levels. Leaving aside the offsetting receipts category for simplicity, this approach would spread the required reductions proportionately among the three general program categories, leaving their relative priorities unchanged. Over the four-year period from 1986 to 1989, this would mean a 7.1 percent reduction in projected outlays for each of the categories of spending. Since entitlements and other mandatory spending

constitute the largest part of noninterest outlays (and excluding offsetting receipts), this category would have to be reduced by the greatest dollar amount--by $142 billion as shown in Table 4. Eliminating all further cost-of-living adjustments in these programs for 1986-1989 would produce cumulative savings of $130 billion, as shown in Table 3. To achieve the target saving of $142 billion would require a small reduction in average real benefits for those currently eligible. The national defense and nondefense discretionary reductions could be achieved through the appropriation process. For example, the $98 billion reduction in national defense outlays could be achieved by eliminating the real growth component in CBO's baseline projections, but nondefense discretionary appropriations would have to remain frozen at their 1985 level, with no inflation adjustments for four years and no civilian agency pay raises for the next three years.

An Equal Growth Formula

The second way to achieve the targeted reductions in outlays would be to limit the annual growth in these outlays to the same rate for all categories--in this case to an average of 4.9 percent per year. Table 4 shows this would produce dramatically different results from those obtained using the first formula. Under the equal growth rate approach, the reductions would be greatest for national defense spending since this was projected to rise the fastest in the CBO baseline projections. Over the 1986-1989 period, national defense outlays would have to be reduced by $174 billion in this example, or by 59 percent of the total reduction in outlays (excluding interest and offsetting receipts). An outlay reduction of this size would mean reducing defense appropriations below the 1985 level in

real terms during the next four years, although there would still be some increase in outlays largely as a result of previous years' increases in budget authority. The reduction of $111 billion in entitlements and other mandatory spending could be achieved through various changes to expected cost-of-living adjustments for indexed benefit programs, such as forgoing any COLAs for the next three years (1986, 1987, and 1988). Nondefense discretionary appropriations could be allowed to increase slightly less than the rate of assumed inflation and still meet the outlay target. Under this approach, the relative budget shares of the different spending categories would remain the same as they are estimated to be for 1985, but they would shift markedly from those projected in the baseline.

Spending reductions in this example have been calculated in terms of reductions from CBO's baseline projections, which endeavor to show how the budget would be likely to appear in the future under current policies. The baseline projections are naturally sensitive to the underlying economic assumptions, especially those involving economic growth, inflation, unemployment, and interest rates. Furthermore, the spending reduction estimates do not take into account the secondary effects on the economy of lower spending and smaller budget deficits. It is possible that interest rates might turn out to be lower than assumed for the baseline projections as a result of reduced borrowing demands by the federal government brought about by lower deficits. Lower interest rates might in turn lead to greater economic growth, more revenues, and still lower deficits. On the other hand, reduced government spending might result in slower short-run growth

in the economy, lower revenues, and higher deficits. Important as such secondary effects might be, it is impossible to estimate them with certainty.

The CBO baseline projections are also sensitive to the assumptions made about future appropriations for discretionary programs. In the baseline projections, defense spending is calculated on a different basis than nondefense programs. The baseline projections for defense programs assume real growth of about 5 percent annually, while the projections for nondefense spending assume zero real growth. These assumptions appear to be generally consistent with recent budget decisions, but they do not necessarily represent an accurate projection, program by program, of the budget priorities and policies contained in the base-year appropriation actions.

An alternative approach would be to project defense spending on the same basis as nondefense spending--that is, to assume zero real growth in spending authority. This would eliminate the first line in Table 3, which shows the real growth component for defense spending in the CBO baseline, and this would reduce the amount of program reductions necessary to achieve the hypothetical budget plan shown in Table 4 by $104 billion. It also would require a real decline in defense appropriations from the 1985 level if the needed program reductions were spread proportionally among all spending categories.

An alternative to using CBO baseline projections in designing possible budget formulas is to employ historical trends. The problem with this alternative, however, is to select the time period for determining historical trends. As shown earlier, the budget outlays of different categories or functions have not grown uniformly over time. Historical trends based on a 20-year period would be very different from those based on a 10-year period, as demonstrated in Tables 1 and 2. Also, average annual growth rates could mask recent acceleration or deceleration in different spending categories, and would not accurately reflect recent events or policy decisions. This would be especially true for the entitlements and other mandatory spending category, where outlays can be very sensitive to recent changes in law.

In summary, the implications of various possible general formula approaches can be worked out easily in terms of changes from the base year and/or changes from a set of baseline budget projections that represent the continuation of current laws and policies. While the targets may be easy to establish, achieving them through legislative means is another matter because of the nature of federal spending programs. The next section reviews a number of budget plans that take into account the differences among spending programs and the fact that outlays can be controlled only indirectly through appropriations and changes in entitlement legislation.

FORMULA-TYPE BUDGET PLANS

A number of budget plans that contained formula features were proposed in the Congress during the past year. The House Budget

Committee, for example, recommended a three-year budget plan with the following features. It would:

- Limit most nondefense discretionary spending programs to 3.5 percent annual nominal growth.

- Allow Social Security trust funds, and also means-tested entitlements, to grow in accordance with current law.

- Set Defense spending authority at 3.5 percent annual real growth. It would also allow selected domestic programs for the poor and the handicapped to have some real growth during the three-year period.

The formula features of the Committee's budget proposal are stated in terms of percentage growth factors applied to the base year. For defense spending, however, the growth was stated in real terms, while for most nondefense discretionary spending programs it was stated in nominal terms. Since inflation was projected at above 3.5 percent annually, nondefense discretionary spending under the Committee's plan would experience some real decline.

An alternative budget plan proposed by Congressman Roemer also contained some formula features. These included a three-year freeze on most nondefense discretionary spending programs at the 1984 appropriation

levels and a reduction in the projected cost-of-living adjustments for indexed entitlements by two percentage points each year. (A freeze in appropriations is the same as a zero nominal growth rate.)

The freeze concept was quite popular in the Senate. Several plans included zero nominal growth components for both defense and nondefense discretionary spending programs, usually applied for a limited period such as one year. Some also included proposals for adjusting the annual COLAs by some percentage-point reduction below the annual increases in the Consumer Price Index.

One Senate budget plan that was largely constructed on the freeze concept was proposed by Senators Grassley, Biden, and Kassebaum. This plan included the following features:

- Freeze all discretionary budget authority for one year at the 1984 level (for both defense and nondefense programs) and provide no pay raises for military and civilian employees in 1985.

- Forgo cost-of-living adjustments in indexed benefit programs for one year.

- Freeze hospital reimbursements at the 1984 level (no allowance for price increases) for one year. Include projected increases for caseload and increased medical care utilization.

Another budget plan proposed by Senators Hollings, Andrews, and Exon also included the one-year freeze feature for COLAs, federal pay, and nondefense discretionary spending programs, but allowed 4 percent real growth in defense spending authority for 1985-1986 and 3 percent real growth in 1987. Senator Symms proposed a three-year freeze in COLAs and pay, and a 10 percent reduction in nondefense discretionary spending programs below 1985 baseline levels with a freeze at the reduced levels for 1986-1987. Senator Helms also proposed a budget plan with a 10 percent reduction feature. In this case, the 10 percent reduction was applied to the 1984 enacted level (excluding Social Security and Medicare), and not to the projected baseline levels.

Table 5 contains a sampling of formula options that have been proposed or suggested during the past year, and shows for each the resulting savings from CBO's baseline projections by general category of spending. A formula-type budget plan could be constructed by choosing an option from each category.

Formula-type approaches could be applied to the revenue side of the budget as well. For example, a 10 percent surcharge on individual and corporation income taxes would be a formula-type action. Similarly, a 10 percent reduction in the value of all income tax deductions would be a formula-type proposal. Also, the indexing provisions for individual income tax rates could be adjusted in the same manner as the automatic cost-of-living adjustments for indexed benefit payment programs.

TABLE 5. ILLUSTRATIVE FORMULA-TYPE BUDGET OPTIONS (By fiscal year, outlay savings in billions of dollars)

	1986	1987	1988	1989	Cum. 4-Year Total
National Defense 1/					
One-year budget authority freeze, 5% real growth thereafter; no pay raise in 1986	-12	-20	-24	-23	-79
Increase in budget authority by inflation less 3 percentage points in 1986, 3% real growth thereafter; increase in pay rates by inflation less 3 percentage points	-9	-20	-29	-39	-96
No real growth with 3.5% pay raises	-4	-13	-26	-42	-86
No increase in budget authority; no pay raises	-12	-34	-64	-98	-208
Cost-of-Living Adjustments 2/					
One-year COLA freeze	-10	-13	-14	-14	-51
Two-year COLA freeze	-10	-23	-26	-26	-85
Two-year COLA freeze excluding Social Security	-2	-6	-7	-7	-22
COLAs equal to inflation less 3 percentage points	-5	-13	-21	-29	-68
No COLAs	-10	-23	-37	-50	-120
Nondefense Discretionary Spending					
One-year program level freeze	-3	-5	-6	-7	-21
Two-year program level freeze	-3	-8	-11	-12	-34
Increase in program levels by inflation less 3 percentage points	-2	-5	-8	-12	-27
No increase in program levels	-3	-8	-14	-20	-44
Civilian Agency Pay Raises 1/					
One-year freeze	-2	-2	-2	-2	-8
Two-year freeze	-2	-3	-4	-4	-13
Increase in pay rates by inflation less 3 percentage points	-1	-2	-4	-5	-12
No pay raises	-2	-4	-6	-8	-20

Note: The outlay savings shown in this table are calculated as reductions from the CBO baseline projections shown in Table 1, and are subject to change when those projections are revised.

1/ These calculations are net of offsets for employer payments to employee retirement funds.

2/ These calculations exclude the Food Stamp Program.

CONCLUSION

Most formulas proposed for budget plans concern the rate of growth in spending from one year to the next. The composition of the budget is such, however, that it would be very difficult--if not impossible--to obtain a uniform rate of growth for all budget components in terms of outlays. Debt service costs can be controlled only indirectly through changes in the level of outstanding interest-bearing debt. The cost of entitlement programs can be controlled only through changes in the basic provisions of the authorizing legislation. Spending for national defense and nondefense discretionary programs can be controlled only through changes in the levels of budget authority provided in annual appropriation bills. To be sure, these changes can be designed to achieve a uniform effect on the rate of growth in outlays for all components, but unexpected changes in the economy, foreign affairs, weather, and other events that influence outlays could prevent the achievement of the desired objective.

Nevertheless, formulas may be useful in setting general budget targets, such as reducing the level of spending as a percentage of GNP, or limiting the overall growth of spending to some percentage rate. These targets could provide a framework for designing specific budget outcomes and, in that sense, impose a practical discipline upon decisionmakers. Formulas can have the effect of shifting the burden of justification from those proposing a general policy to those seeking an exception from its application.

On the other hand, the use of formulas to achieve some desired budget outcome can produce dramatically different policy prescriptions. Formula approaches to budgeting are not policy-neutral. They still require policymakers to consider the relative priorities of competing demands for limited resources.